

Record of Decision

Butte Priority Soils Operable Unit

Silver Bow Creek/Butte Area Superfund Site

Butte, Montana

September 2006

U.S. Environmental Protection Agency
Region 8, Montana Operations Office
10 West 15th Street, Suite 3200
Helena, Montana 59626

In consultation with and partial concurrence from:
Montana Department of Environmental Quality
1100 North Last Chance Gulch
P.O. Box 200901
Helena, MT 59620-0901

- Mine Flooding OU - consists of the flooding Berkeley Pit and hydraulically connected underground mine workings and associated bedrock and alluvial aquifers in Butte. It addresses the bedrock groundwater system, which underlies beneath and influences the BPSOU. EPA completed a ROD for this OU in 1994. The ROD, including its state-of-the-art treatment plant to provide perpetual treatment of groundwater and extensive monitoring, is being implemented.
- West Side Soils OU - encompasses areas of Silver Bow County that have experienced mining activity but lie outside of other OU boundaries, generally north and west of the BPSOU. EPA is currently conducting preliminary RI/FS planning for this OU.
- Active Mining and Milling OU - consists of the permitted mine area currently operated by Montana Resources (MR) west and northwest of the BPSOU. In 2002, EPA deferred Superfund action at the OU to state authority under the State issued mine-operating permit and associated State mining laws.

Numerous response actions, including time-critical removal actions, expedited response actions, and other reclamation activities, have been implemented at the BPSOU. These previous response actions and the Selected Remedy are discussed below.

Previous Response Actions

The following is a summary of previously implemented response actions conducted within the BPSOU as Time-Critical Removal Actions (TCRAs) and Expedited Response Actions (ERAs, also known as Non-Time-Critical Removal Actions [N-TCRAs]). These actions were taken to address immediate and significant human health and environmental risks that EPA did not want to delay until the RI/FS and ROD process was completed. These response actions were subsequently evaluated as part of the RI/FS process.

The purpose of these early response actions was, in part, to address source areas that were found to have Contaminants of Concern (COCs) at concentrations that pose actual or potential human health and/or environmental risks. Approximately 422 acres of land within the BPSOU have been addressed through previous response actions. Previous response actions were completed using the expedited Superfund removal process. Although an expedited process was used, Superfund law requires these actions to be consistent with, and contribute to, the efficient performance of a final long-term remedial action, to the extent practicable. Therefore, EPA required that the early response actions be designed and constructed in a manner intended to be consistent with any final remedy.

Six TCRAs (Walkerville, 1988; Timber Butte, 1989; Butte Priority Soils, 1990-1991; Colorado Smelter, 1992; Anselmo/Late Acquisition/Silver Hill, 1992; and the Walkerville II, 1994) have been completed. Major construction for the on-going Storm Water TCRA and Railroad Beds TCRA was completed in 1999 and 2004, respectively. Two on-going expedited response actions include the Lower Area One (LAO) and the 1994 Residential/Source Areas (source areas and yards), which was amended to

Section 4
Scope and Role of Operable Unit

operate a Montana Pole water treatment plant and in-situ treatment facilities for decades at this site.

Silver Bow Creek/Butte Area NPL Site

The Silver Bow Creek/Butte Area NPL Site is divided into two portions for administrative purposes - the Butte portion and the original portion. The Butte Priority Soils OU (as described extensively in this ROD) is one of four remedial OUs within Butte portion (Figure 4-1). The other three OUs in the Butte portion include:

Butte Mine Flooding OU. This area consists of flooding of the Berkeley Pit and hydraulically connected underground mine workings and associated bedrock and alluvial aquifers in response to the cessation of dewatering practices. It also addresses the bedrock groundwater system under a large portion of the Butte Priority Soils OU.

EPA completed a ROD for this OU in 1994. A state-of-the-art treatment plant was recently completed to treat inflow from the active mine area. This treated water is currently being used by the active mining operations. Berkeley Pit water will be treated at this treatment plant when rising water levels in the Berkeley Pit reach the determined critical water level. Treated water will be discharged to Silver Bow Creek or reused within the active mine.

West Side Soils OU. This OU encompasses areas of Silver Bow County that have experienced mining activity but lie outside of other OUs. This is generally north and west of the Butte Hill. EPA has conducted initial scoping activities for this OU.

Active Mining and Milling OU. This area is located east and northeast of the Butte Priority Soils OU and consists of the permitted mine area currently operated by Montana Resources. In 2002, EPA deferred Superfund action at the site to state authority under the operating hard rock mining permit.

The original portion of the Silver Bow Creek/Butte Area NPL site includes four remedial OUs:

Streamside Tailings OU. The Streamside Tailings OU covers an area along Silver Bow Creek and its associated floodplain, and runs from the western end of the Butte Priority Soils OU to the point where Silver Bow Creek enters the Warm Springs Ponds. The OU extends for approximately 25 creek miles between Butte and Warm Springs.

The OU focuses on the fluvially deposited tailings along Silver Bow Creek and the adjacent railroad beds that are contaminated with mine waste. DEQ and EPA completed a ROD for this OU in 1995.

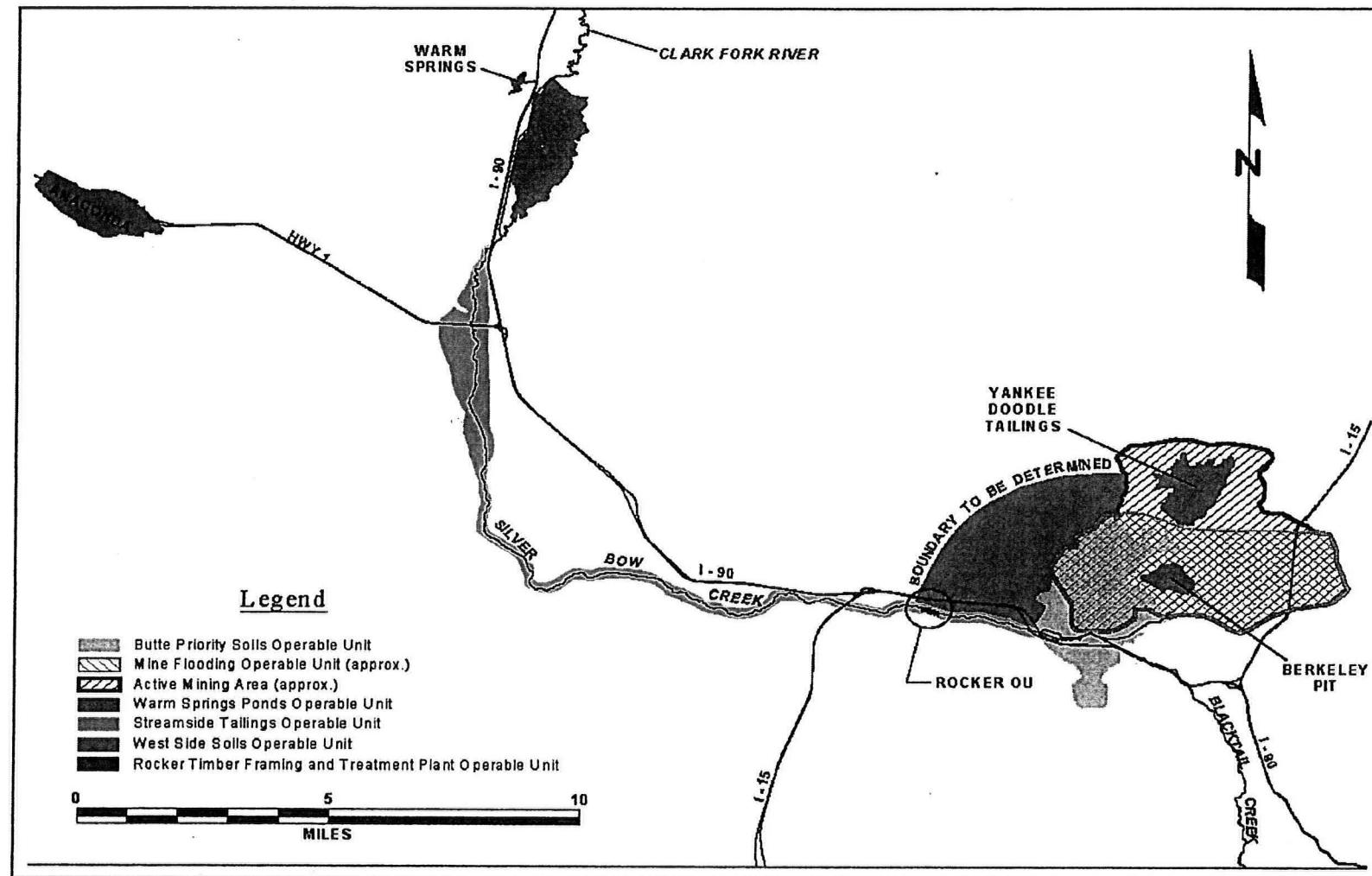


Figure 4-1
Operable Units within the Silver Bow Creek/
Butte Area NPL Site (approximate boundaries)
Record of Decision
Butte Priority Soils Operable Unit
Silver Bow Creek/Butte Area NPL Site



EPA Response: Sources of air pollution from the concentrator, crusher and active mining area are not under the Superfund responsibilities under the BPSOU remedy. The State of Montana is the regulatory authority for the active mining operation and has a permit in place for the active mining area. Air quality associated with sources west of Butte will be addressed under Superfund jurisdiction as part of the West Side Soils Operable Unit. Opportunity Ponds is addressed by Superfund as part of the Anaconda Smelter Superfund site.

1.2 General Comments

Comment Topics, Comment Totals, and References

Topic	Subtopic	Number of Comments	Comment ID references
Overall Topic: General Comments		22	
General Comment	A General Opposition	5	102.5, 107.26, 107.27, 111.3, 114.1
Environmental justice	A Concerned about Health Effects/Risks	2	20.3, 20.4
	B Public Education/ Technical Communication	3	18.1, 18.2, 18.3
Proposed Plan	A Inconsistencies in the Proposed Plan	6	1.24, 1.28a, 1.29, 1.30, 3.19, 3.23
Public Involvement	A Public Involvement/ Technical Communication	1	35.8
Unrelated Topic	A Out of Scope	5	12.1, 34.1, 64.1, 80.2, 120.3

General Comment

- A. *General Opposition Expressed:* Five different comments were received in general opposition to the proposed remedy that were not easily categorized. One commenter wondered if EPA would feel differently if its employees lived in the area. Others expressed concerns about the credibility and veracity of EPA.

EPA Response: EPA has considered these comments. EPA has based its remedy decision on the facts and analysis contained in the site documents and the BPSOU administrative record, and on the requirements of the Superfund law, its implementing regulations, and its guidance.

Environmental Justice

- A. *Concerned about Health Effects/Risks:* Health is directly related to income for a number of reasons (given in the comment). These income related health problems are particularly evident in children (studies cited).

EPA Response: The Selected Remedy will be administered equally at all residential properties without regard to income. EPA has focused its initial efforts at addressing human health risks from Superfund contamination on homes with children and pregnant women, and will continue to prioritize efforts for these types of residential properties.